GLEANINGS IN BEE CULTURE

Or how to Realize the Most Money with the Smallest Expenditure of Capital and Labor in the Care of Bees, Rationally Considered.

PUBLISHED MONTHLY, AT MEDINA, OHIO,

BY A. I. ROOT & CO.

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In the Preparation of this Journal the following are the Principal Periodicals Consulted:

American Bee Journal. *Clarke.*

Bee-Keeper's Magazine. *King.*

National Bee Journal. *Mrs. Tupper.*

Bee World. *A. F. Moon & Co.*

[*Also Bound Volumes of the former since* 1860, *and Files of all other Bee Journals that have been Published in America.*]

American Agriculturist,

Prairie Farmer,

Rural New Yorker,

Country Gentleman,

Ohio Farmer,

Scientific American.

"Novice's Wind-Mill Print," Medina, Ohio.

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NEW ADVERTISEMENTS, AND SUNDRY OTHER MATTERS.

OUR coffee sugar costs us 10⅝.

MRS. TUPPER'S Journal is now consolidated with the *A. B. J.*

WE have for several years purchased Honey Jars of Fahenstock Fortune & Co.; see advertisement.

THE BEE WORLD has not as yet made its appearance for August, nor has any reply to a postal card of inquiry.

WHILE 'tis only an occasional Bee-keeper, in an occasional locality, that succeeds with box honey, we think we are almost safe in saying that *any one* can succeed in getting extracted honey in almost *any* locality.

HAVING procured some neat wood mailing boxes at a low price, we will send comb containing *very small larvae* from our imported Queen, securely packed for 25c. If the weather proves favorable, they will generally produce good Queens. Eggs we consider almost a failure.

THOSE who want a tested Queen from Imported stock *without delay* had better send to Frank Benton. See advertisement. Those who order dollar Queens *must* wait until their turn comes, and orders are tod-ay, Aug. 27th "way ahead of us."

WE are pleased to call attention to the fact that the Quinby Smoker is now made *without solder*, and since the new postal law, is sent by mail for $1,60. Mr. Q. personally superintends their manufacture and is ready to add any farther improvement that may be advisable.

OUR neighbor Dean, of River Styx, has sent *four* more Queens to Klum, of Sherman, Texas, and all were received alive, and are now safely introduced and laying. After the trials friend K. has had in getting Italians he feels as though friend Dean should "go up to the head."

WE have many times thought it strange that N. Y. City could not afford a Honey House capable of disposing of any quantity that might be offered, and are now pleased to note that Mrs. S. E. Spaids has located there and offers cash on delivery. See advertisement. In our Nov. No. of Vol. 1, Adam Grimm speaks quite favorably of the lady's promptness in business.

LAST fall we advised using wire cloth over the top of the hive, to keep the bees in when housed. We were not then aware that very neat straw mats were made for the purpose; these also answer excellently for absorbing all dampness, and permitting the air to pass slowly from the cluster, thus avoiding a draft, but still giving ample ventilation. See advertisement. Samples can readily be sent by mail.

OUR friend Dadant, it seems is succeeding so well in importations this summer, that he reports having received 15 live Queens out of a lot of 16. Since friend Nunn's imported Queens are all sold, we shall have to refer inquirers to Dadant's advertisement for the balance of the season. We feel like thanking them for reducing the price so low as $10.00, and but 9.00 when two are taken. 'Tis an easy matter now, to have all complaints of impurity at an end.

WE find that it is many times difficult to obtain small tinned or galvanized tacks for fastening on the Queen Register Cards etc., and have accordingly procured some that we can mail for 10c per paper. To indicate the year in which a Queen was hatched 'tis only necessary to drive one of these tacks opposite the last figure of the current year outside the circle of figures indicating the day of the month. Thus: all Queens reared this year will have a tack driven opposite the figure 4; then next, the figure 5 and so on. If a Queen reared this season fails next, we will pull out the tack and drive it opposite the 5.

WILL some of our inventive friends please bear in mind that in making improvements on hives, 'twould pay them well to know first what has already been done. As an illustration, a subscriber sends a hive by express, that, judging from his letter, has cost him much time and study, yet it is precisely the straw hive recommended in Quinby's book many years ago for wintering. The chances are great, nowadays, that you are only wasting your skill and ingenuity on something already well known. *Patents* are often granted we well know, but when it can be shown that the *same thing* has been patented before or has been in use years ago, of what avail is the patent?

IN our last, we mentioned that orders for $1 queens were nearly all filled, but since then we have had so many we fear they cannot all be filled this season. One of our Southern friends at least, Dr. J. P. H. Brown, Augusta, Ga., is doing a good work. In one case we know of his having sent a second queen gratis in place of one found dead on arrival. We consider this a free gift on his part, for an Italian Queen is certainly worth $1.00 without any expense of mailing, postage etc., and we cannot afford to make good any of the losses, always liable to occur in the Queen traffic.

AT least *three* of our friends should be more careful to read the conditions under which $1. Queens are sent. The first sent for one but she was lost in the mails, the second received the queen but she was dead, the third was advised that his queens would probably be sent within a week, but we fear 'twas three weeks or more, when he *demanded* his money or bees, and as the order was in the hands of a neighbor several miles away who only gets mail twice a week, 'twas some time before we could restore "harmony." Now according to agreement, the first, as soon as he learned the Queen was lost, should have accepted it as his risk and his loss, also the second; and the third should, if he preferred, have pleasantly requested his money returned if the Queens had not been shipped. There seems to be considerable misapprehension in the matter; we are *not* making money out of the dollar Queens as yet, and our friends should bear in mind, that we furnish them more from a desire to disseminate the Italians than for profit. When we furnish Queens reared from Imported stock, especially is it difficult to make them pay at the price after all expense of caging, postage etc. etc., and we really cannot stand a lengthy correspondence in the matter. The remedy is simple, send *three* dollars where you expect safe arrival and purity guaranteed.

GLEANINGS IN BEE CULTURE.

DEVOTED EXCLUSIVELY TO BEES AND HONEY

Vol. II. SEPTEMBER 1, 1874. No. IX

HOW TO CONDUCT AN APIARY.

No. 9.

ONE year ago we said, "in time of peace prepare for war" and we say so again now, but really, with less confidence in our ability to direct *what* preparation is to be made, than we had then.

So far as dysentery is concerned, we have no fear at all but that it is perfectly under control, but the dwindling away, and rapid depopulation of the colonies in the spring, is a matter which we fear is almost beyond our skill. From great numbers of reports, from widely scattered localities we find that some Apiaries winter just as well as they used to years ago, colonies dying only from starvation, while within a short distance at a neighboring Apiary they may all die. These results come when the circumstances are so widely different, and where almost every kind of treatment has been given, all the way from box hives out doors without care, to movable combs, Italians, and honey extracted until frost comes, that we think we are excusable for thinking it an epidemic among bees that appears in some Apiaries and not in others; and for which we have as yet no positive remedy, for the box hives have failed in one case and those which were extracted came out all right, and the next report would be right the reverse.

Mr. I. E. Daniels of Lodi, this Co., purchased several colonies and moved them late in the fall after all pasturage was over. A part of them with the rest of his colonies were left out, and a part put into his cellar, yet all died about alike, while his neighbor a few miles away, from whom these were purchased, *lost none*. Is it not rather probable that some disease used up friend D's Apiary? His colonies were remarkably strong in Sept., when we examined them, and he has hitherto been a most careful and successful Apiarist. Again, the honey that apparently *killed* the bees in '73, wintered them successfully in '74, see pages 22 and 58, current volume.

Now it is certainly poor encouragement to be told our bees may all die in the spring *whatever we do*, but facts are stubborn things. Nevertheless we are by no means to fold our hands and give up; strong colonies through this trouble, as with all others, have almost uniformly been the ones, if any, that came safely through the siege; we are to bend our energies to the work of making all good.

P. G. says she could take *one* colony and build it up strong, arrange the stores just right, and fix it up so she *knows* 'twould winter either in doors or out; how many of our readers feel the same way? If they can do one, why not fifty? Is it *time* only that is needed? If such be the case 'twill probably be a better investment of this precious time, to go to work now, this month, and if conscious that we have too little nerve or energy to put our whole Apiary in "apple pie" order at once, perhaps we had better take one at a time, and make believe for the time being, 'tis our sole possession.

Now the question comes up as to what is to be done, that is, what do we know from past experience etc., can be done safely; not in an experimental way, (manure etc.) but established, that all or nearly all will agree on.

Suppose our readers stood about us, and we pointed to a colony, and addressed them something after this fashion:

"Fellow laborers can you all agree on what shall be done to put this colony in good shape for wintering? How many bees shall we have? Is there one of you now, that would be satisfied with a pint, a quart, or even two quarts? The hive contains ten Langstroth combs, if we bring brood if necessary from other hives, (thereby reducing the number of colonies) until at least seven of the ten combs contain brood, and bees enough to cover them nicely, will it be too strong this first day of September?'

We think the majority of you will agree that it will not; and also that 'twill be just as well to leave the brood in its natural position. If honey should come in during the fall we can put empty combs at one side or above them, to be used in the extractor.

In regard to the amount of stores needed, you will all probably agree that if the brood combs are all bulged out above the brood with sealed stores, and the other three full and heavy with pollen and sealed stores also, that they have an ample supply.

Uncapped watery looking honey, you will all admit is not to be considered desirable. *We* shall use sugar syrup in place of honey, and it will have been fed to them principally during the month of August; during this month we shall also feed enough to keep up brood-rearing briskly, and shall move the combs about but little; leaving each colony all the pollen they have gathered and just in the position they have placed it.

If after we have fixed everything the best we know how, they should die, we can console ourselves with the thought of having done our duty at least, and that bee culture is not the only pursuit having its drawbacks, by any means.

OUR OWN APIARY.

TO-day, July 30th, after getting our August number all safely in the Post Office—we always feel as if we had got the washing done and ironing too for that matter (as the women say) when they are all printed, addressed, wrapped, and tied in their respective bundles—well, after this was all done, as we were saying, we repaired to the Apiary which had been for about three days pretty nearly running itself. Now before telling you of the wonderful sight that met our "optics," we shall have to remark that our friend Dean had just one week ago to-day, brought, us a box of bees, to be exchanged for brood from our imported Queen. Well, we took out three combs, and cut the eggs out of the centre of each—D. only uses eggs for all his Queen-rearing—and then just for fun we put these three combs into an empty hive, and after filling it out with seven more containing stores only, we poured the bees he had brought, in front of the hive, and straitway had a fine colony, for he in his generosity had brought about a *peck*. These bees he had obtained from different hives and as he had hastily shaken them from the combs, of course they comprised all ages. Now the big wonder we have been so long trying to tell was, that we counted on these three combs, Queen cells to the number of—to be exact, Novice found *fifty eight*, but P. G. only made it forty nine, but 'twas nearly night, and she says she skipped some that weren't good ones, "as if she could tell by the looks of the outside," Novice says. Well as part of them are very close together we shall get out our "conservatory hatching machine" and then we'll tell all about how many good ones there were.

Aug. 3rd—Yesterday was Sunday. That is one fact; another is that it was the tenth day since our mammoth lot of Queen cells were started. In anticipation that something might happen to make Sunday work necessary to save them, about a dozen hives were located and furnished with combs late Saturday even'g. About half past five on Sunday morning, Novice arose put on a *clean* pair of linen pants etc., washed his face and proceeded to wipe it and comb his hair as usual while he sauntered about among the hives and grape vines. After finding all on duty apparently as they should be, he proceeded to enjoy the tranquility of the early Sabbath morning by reading his favorite papers seated in the camp chair beneath one of the Lombard plum trees. It may not have been purely accidental, his having chosen a seat nearly in front of the hive containing the Queen cells; these he proposed examining a little later in the day, but intended to keep them until Monday if practicable. As he sat reading, his eyes wandered occasionally toward the entrance and finally to get a fair view of every thing brought out by the bees, he got the broom and commenced sweeping away the immature plums and leaves that had dropped about the hive. Suddenly he stops and ejaculates, "As sure as you're alive that is a dead Queen, and here's another." Away went the papers; one of the Queens that seemed alive was placed in the sun in a cage, and then the hive was examined. A fine Queen was parading the combs and perhaps a dozen cells were torn open, or had the lids hanging. Four Queens were found "loose," two of which were fighting; like friend Grimm of old, he tumbled these a yard apart in the grass, and the other two were put on separate combs, which were carried to new hives, bees, brood and all. Our bee house stove was wheeled out, the tin Simplicity hive with hollow walls, mentioned a year ago, was placed upon it and the lamp lighted. In this the two combs containing the cells were placed, after shaking off the bees, and four more nice Queens were found scattered about, after all was done. In fact Novice soon began to examine every bee found crawling on the ground, thinking it might be a Queen. Five more Queens were hatched during the day, and as fast as they hatched they were given to nuclei hastily extemporized by placing three combs of hatching brood, bees and all, in one of the new hives, or given to Queenless colonies. Toward evening to dispose of the last one a black Queen was killed from one of our natural swarms, and the young Queen placed almost the same instant on the same comb she had occupied. To-day we find her all right and no Queen cells started. Is not that a simple way of introducing? The whole operation scarcely taking three minutes. With the Simplicity hives we frequently open the hive and find the Queen in *one minute*.

To- day about a half dozen more have hatched, and we have increased our number of stocks to 54.

Aug 4th—Sixteen more fine strong active Queens have hatched, and we have 61 colonies, and more Queens that we know not what to do with. We could very easily turn them into dollars if they were fertile, but the problem is to get bees to care for them until this be accomplished; we have already gone further than we intended increasing, and begin to fear we may not be equal to the task of making all strong for winter. We find ourselves often wondering if it be really possible that Queens just hatched can *really* be put safely in any colony of bees, without any bother of caging.

Our experience has been for the last three days, the same as last year, that Queens hatched *without bees*, can be placed in any Queenless hive, *under any circumstances* with impunity. As they have seen no *other* bees, they at once hasten to those presented them with perfect confidence, and this confidence is seldom a mistaken one for the bees receive them with a manner that seems to imply, "Well, she *must* have been hatched in our hive, for how else could she get here in that shape?"

Aug. 7th—As our colonies now number sixty eight, we think it is about time to stop, and direct what skill we are possessed of to *keeping* what we have. For the past two days our plan of making colonies has been something as follows: As soon as a Queen is hatched in our nursery we proceed to any full colony, and lift out the comb containing the Queen; then with thumb and three fingers of each hand, we lift out at once three combs, brood, bees and all, and carry them gently to a new hive. After dropping the newly hatched Queen on top of these frames among the bees the swarm is made, and we have only to put empty combs in both hives until they are full again.

This process we had repeated so many times, we began to think failure impossible, but when we began to draw on our *black* stocks for bees and brood we were disappointed in finding two Queens in front of the hive, dead. This was passed over as a small matter, until to save the Queens that kept hatching, we killed our three remaining black Queens and gave them the young ones as usual. The whole three were found in front of the hive dead; three more were given them and one of them was soon walked out with a bee on each side of her, holding each a wing. We returned her caged, the first caging we have done for weeks. If this is another unfavorable trait of the blacks, we shall assuredly endeavor in future to "run our Apiary" *without* their assistance. Again, the black colony that we requeened so expeditiously on Sunday to save a fine Queen, was found all right Tuesday and no cells started; she consequently had been allowed full liberty of the hive for 48 hours or more, yet to-day, she too, was found dead in front of the hive and a host of cells started. Is it possible they did not discover the "swap" we had made until after two days or more? We think we shall have to try *them* with a Queen cell to-morrow, yet we decidedly prefer the "Lamp Nursery," as there is no cutting of combs at all, and no loss on cells, be they built ever so closely.

The following just at hand shows we are not alone in the field.

I have succeeded in introducing 27 out of 30 virgin Queens; three of them by caging. Over 20 were introduced by letting them run into the hive at the entrance, just as soon as practicable after hatching. Such as hatched at night were introduced in the morning.

Two years ago, I introduced a fertile Queen by letting her crawl into the entrance after night, the next morning she was laying eggs; this is the only fertile Queen I ever introduced in that way. You know bees from different hives can be united much more readily after night than in day time.

T. G. McGAW, Monmouth, Ill.

Aug. 10*th*—Our 68 all have Queens, defend themselves fully from robbers, and everything goes finely. The four black stocks have accepted their unfertile Queens with one exception, and we gave them a Queen cell. Yesterday being Sunday we had leisure to watch our young Queens as they took their flight (we never open hives on the Sabbath unless in a case of positive necessity), and we were rejoiced by seeing several take wing with a vigor and ease that dispels any fears we may have had about so many cells in a hive giving all strong and vigorous Queens.

As the yield of honey has about ceased we have been feeding all colonies having laying Queens, from one half to a teacupful of syrup every evening about dusk. The way in which we do it is described on another page. We have decided not to commence out-door feeding so long as no bees molest the groceries etc., as we have so many other bees now in the neighborhood.

Aug. 14*th*—Is it not really provoking. Our big lot of young Queens are all safe in hives, and the greater part of them laying, yet we felt so sure that some of them would be lost, we started another comb for cells, to replace missing ones, and now we have once more large fine Queens, hatching and no place for for them. Our friends who have sent us their "dollars" for Imported daughters, doubtless think we might readily fill their orders, which we would with alacrity, were these laying Queens. If some one will tell us how we can get them fertilized with the ease and certainty, that we hatch them in that same "lamp nursery" we shall feel as if they had divulged to us the whereabouts of a small gold mine on our own premises. Three frames of brood and bees will it is true, convert them into laying Queens in 8 or 10 days, but really we dare not draw on our other colonies more this season. We might also sell those just commencing to lay and thus make a place for them, but we dare not even do that, for fear of marring our prospects of successful wintering. This morning we debated seriously what to do with three remarkably large and yellow ones just hatched, and finally made three more colonies for them, into which they crawled as if they owned it all, and "nary a bee" dissented by word or look.

Now we are going to give the result of our experiments in regard to

BROOD OR EGGS FOR QUEEN REARING.

Our friend Dean, always uses the latter, and advised us, if we wished good Queens, to get a new empty comb built perhaps half way down, and insert it one day in our Imported Queen's colony. When it was supplied plentifully with eggs, to remove and give to a Queenless stock having no other brood, thus obliging them to commence with eggs; such Queens hatching in sixteen instead of 10 days. Now we did just this, *two days after* starting the lot for the 58 cells, noting results carefully.

The large lot were started by the bees at different times, but the first of these hatched on the morning of the tenth day. Those hatching on the first two or three days, from large nice cells were large, and tolerably light for imported stock but some of the last to hatch were very black and small, though quick and active. We have saved several of the latter for experiment, but mind you, we do not propose to sell any of them. Another thing, in none of the large lot did we find any jelly remaining in the cells, but this could hardly be expected with so many.

About one dozen only, were started in the comb with *eggs only*, but they were swimming in jelly as soon as the larvæ were visible to the naked eye; a day or two after, more cells were started over pretty good sized larvæ, half grown perhaps, these have not hatched but the first constructed produced the yellowest Queens we have ever reared from the Imported stock, and they are larger limbed and strong, though not so quick and active as yet, as the small black ones mentioned heretofore. We shall keep a record of course—we can do it easily with our Queen cards—of the longevity of these respective Princesses.

Aug. 19*th*—The great loads of orange and yellow pollen that come in, in the fore part of the day, more especially the hives that contain the daughters of our Imported Queen, call forth admiration from every one, from Blue Eyes up, and as nothing prevents our peeping into the interior as well, we are happy to say the young Queens are faithfully doing their duty, even the dark inferior looking ones as well as the rest. Notwithstanding quite a severe drouth, under the stimulus of our liberal feeding, every egg seems to produce a perfect bee, in a way we don't remember seeing before.

OUR PRIMARY DEPARTMENT,

Or First Principles in Bee-Keeping.

[Designed especially for the veriest novices, and those who know nothing of bees whatever. Conducted by a fellow Novice of several years experience replete with blunders, as well as with occasional successes.]

A GREAT many *commence* bee-keeping but too often end in a miserable failure in a year or two, and some times in a few months or perhaps *weeks* even. Now as we can't tell how many of our readers may do this, and we particularly desire that you should *not* fail, we shall endeavor to make our list of implements for a beginner as brief and simple as possible. We have for this the twofold reason that we wish to avoid all confusion, and also that as few "traps" as possible may be needed and consequently be lost should you abandon the enterprise.

We rather prefer that you should commence with one hive, but if you can't be satisfied with so small a beginning, just double or treble the following amount.

Stock in trade absolutely necessary for a start in bee-keeping.

One swarm of bees 5 to $10.00 estimated	$7.50
Simplicity hive	1.00
10 frames@6c	.60
Quilt	.25
Transferring clasps, one package	.25
GLEANINGS IN BEE CULTURE	.75
	$10.35

We would say it needs just about a $10.00 bill to make a modest trial in the business.

"But," says some one of our readers, "you are continually calculating on our being able to judge for ourselves what we need, when the fact is we know nothing at all about it.

"The hive at $1.00 has no bottom, and how do we know what is best to set it on; also, you have said nothing about paint, yet we think you have somewhere taught that they should never be exposed to the weather without painting. Still again, you say the Italians are much more docile than the blacks, if so why not give us the Italians at once, and then our increase, without any more or *as much* labor in fact, if we are to credit you 'bee folks,' will be Italians and all the more valuable. We certainly don't want to waste our time on inferior stock just to save a little additional expense in the beginning. Come now; tell us just what you would do, should some friend tell you to start him an Apiary, and if you thought one hive sufficient, all right, but it is to be all complete; the amount, to be entrusted entirely to your own skill and judgment.

"Now remember your besetting sin, of economizing too closely in bee matters, but take all the money you want. If we mistake not you have decided not to give a beginner the Standard hive?"

"We certainly would not. Their first lesson should be increase of stocks rather, and after some experience in that business they can decide for themselves whether they prefer to lift their ten frames into a long hive with capacity for twenty, or simply set on another story."

"Well, here is your heading on this paper now put down the items and figures."

OUTFIT FOR A BEGINNER.

Simplicity hive	$1.00
One extra cover to serve as a bottom-board	50
Three good coats of Averill Chemical paint	50
Quilt	.25
Ten combs, mostly worker, @75c each	7.50
Italian Queen from Imported mother	3.00
Four quarts of bees @$1.00	4.00
GLEANINGS IN BEE CULTURE Vol 1 and 2,	1.50
	$18.35

"And is the above all?"

"All for the present."

"Of all the various articles mentioned on your price list would you add none?"

"None else until the article is really felt to be necessary by the owner."

"And the above is sufficient to build up a large Apiary without any additional purchase of bees?"

"We think so. If all Queens are reared from the one mentioned there can be nothing poorer than half bloods, this will serve to give a new strain of blood and they are very good to handle usually, and are nearly equal to pure Italians as honey gatherers. When this Queen fails another tested one should be used. In an Apiary of 25 stocks or upwards an Imported Queen will, we think, be a profitable investment."

Those who have, or find it more convenient to use the box hive and common bees, we would refer to the articles on transferring in former number, see pages 33 and 64, Vol. 1st, and page 49, current volume.

It will require considerable care and skill to transfer a colony in mid-summer or fall, as well as to transplant the grape vine out of season, yet it can be done if you particularly desire it.

If you fail, it will probably be because you are careless and not neat and tidy about your work. The bees will assuredly pass readily into anything in the shape of a hive if it occupies the precise position of the old one and contains some of their brood combs. Two principle difficulties beset beginners; First, daubing honey around so that robbers get "a going," secondly, losing the Queens. Some deft housewife can instruct you better how to avoid the former than we can, and in fact handling honey in almost any shape seems to be decidedly feminine work, but you should before hand give her a clean nice place, free from rubbish etc., in which to do the work. Bees are decidedly the neatest and most orderly class of all animated creation—bless our stars we meant to except every time and *always*, these same feminines—and if you wish them to thrive you must make their habitations (we mean the bees) agreeable to this trait. The Queen cannot get lost unless you leave some crevice or hole for her to crawl into, therefore we repeat our injunction, to bank all around the new hive with clean new saw-dust, pounded down hard, so that a bee may travel over it easily. Now if you make it a point not to kill a bee during the whole operation, you certainly will not kill the Queen.

Very likely they may in their fright, crawl and cluster in several places about the new hive, instead of going in at the entrance, but this should occasion no uneasiness for if the

majority pass in, the rest will all follow in due time, like a flock of sheep. We would locate the old hive while transferring, just back of the new one, but so close to it that the young bees will crawl readily to the entrance on hearing the hum of their companions. Use plenty of smoke in commencing, and you will find them as peaceable as flies when their old hive is removed from its stand.

OUT-DOOR WINTERING IN THE "LONG HIVES."

FRIEND NOVICE: Several of my friends having asked my opinion in regard to wintering bees out of doors, in New Idea Hives, I will now endeavor to answer them.

That they can sometimes be successfully wintered in that way, I have no doubt, as in certain seasons they seem to winter well under all circumstances, and in almost all conditions. I should hesitate about advising any one to try wintering many in that way until the system has been more thoroughly tested. That some have been successful in wintering their bees in that way one or two winters, does not prove that they will always be equally so. The winter of '71 and '72, one of my friends wintered his 25 swarms on the summer stand and did not lose any, although that was one of those "blue" winters for bees. He tried the same way the next winter and lost about half of his stock, and the rest were so reduced as to yield but a small return the next season. Such may possibly be the luck of those who try out door wintering in New Idea hives.

It has been asserted that strong stocks wintered out of doors in the "New Idea" Hive, consume no more honey in proportion to the number of bees than they do in cellar or special depository. Such may be the case in some localities, but all my experience and observation, in regard to wintering strong stocks out of doors, have been different.

My father has kept his bees for over 25 years in a house built on purpose. It is boarded up outside with half inch, and ceiled up inside with matched inch lumber, with six inch dead air space. It is divided into rooms two feet square and they are about seven feet high. The bees never swarm, become very strong during the summer, and generally gather a large amount of honey, but owing to their numbers, and exposure, it frequently takes all or nearly all they collect to carry them through the winter. He never gets as much honey from one of his swarms, as I do from the most of mine. If he could put them in some moderately warm place, it would no doubt save a large proportion of the honey they consume during the winter, but with the thermometer at from 20° to 30° below zero, the ground freezing to a depth of 2 or 3 feet, two thicknesses of boards and one air space are but a slight protection, and the bees must consume honey or freeze. Owing to the wide air space, which they have to pass in going out, the bees do not fly out as soon as they do out of common hives, during warm spells of weather during the winter, yet large numbers of them perish every winter, and by spring they are no better than my common swarms wintered in my bee house, whilst they consume at least two or three times as much honey. Now, I cannot see why New Idea Hives, with one fourth inch air space, will give any better protection than father's house, with six inch air space. The large number of bees will generate considerable heat, but they will produce no more than they will in the house.

But while I would not advise any one to risk trying to winter many of their bees out of doors in New Idea, or in fact any other kind of hives, in preference to putting them in some warm place, before they have tested the matter, yet I would not wish to discourage any one from making such hives, for so far as I have tested them, they give good satisfaction, for summer use. This is more especially the case where the extractor is used, for they are certainly handier than the two story hives for that purpose. And aside from the inconvenience in handling them, and the space they occupy, I can see no reason why bees in them cannot be wintered in-doors as well as those in common hives. And if we can winter strong stocks in them more economically in-doors than out, their size should not keep them out. A horse takes up more room in a stable than a pig or chicken, yet few object to stabling him on that account. As the swarms are stronger, the temperature of the room in which they are wintered must be kept lower than it should for common stocks, and they must have plenty of upward ventilation. That is all the difference required in the treatment in wintering, and the saving in honey will more than repay all the trouble, even if it takes two men to carry them in.

In the fall of '72 I had a number of two story hives on which I had used the extractor, and as the Queen had been breeding in both stories, the hives were full of bees almost to overflowing. On the approach of winter I put them all in the lower story, gave them plenty of upward ventilation, put them in the house with the rest, and they wintered as well as any stocks in the Apiary. Last fall when I put the bees from double width hives in single hives, I neglected to give them the proper amount of ventilation, and consequently more of the bees died, and they consumed more honey than the ordinary stocks, but in other respects they came through in good condition.

JAMES BOLIN, West Lodi, O.

LETTER TO "NOVICE."

FRIEND NOVICE:—As you request, I will make you a report of my Apiary for 1874 up to this date (Aug. 5th). I began the season with 48 colonies, 31 of my own wintering (all Italians) and 17 of blacks bought this spring in box and Quinby hives. The Quinby hives have been more trouble, and less profit to me than the boxes. I have increased to about 70 colonies I guess, but shall cut down to 50 of my choicest Queens before going into winter quarters. I have taken, up to this date, I think some over 4500 lbs. of ext'd honey, and 500 lbs. of comb now off, and almost ready to come off. About 700 lbs. is from fruit and Whitewood blossoms, and the rest all Basswood, and the heaviest and brightest I ever saw. This has been a poor season with us. The drouth has been so severe in this immediate vicinity, that corn is not ½ of a crop, and potatoes nearly as bad. We shall lose the Buck wheat crop for honey at least, though it yields an abundance of pollen. I shall look for 2000 lbs. of honey yet from Bone Set and Golden rod. I mean ext'd of course, *or* 150 lbs. of comb if you think I had better "go for comb honey." I could have had all my 500 lbs. off now, if I had let the *forty five hundred* slip from me. I have used 22 of the "New Idea" one story hives, with from 20 to 30 combs about 10x13 and have come to the conclusion that *combs* and not Queens *are the basis of an apiary*, and that I prefer the two story hive for the extractor, as well as comb honey in frames or boxes. I can get more honey from 30 combs and two or three Queens, than from 30 combs and one Queen. The three Queens don't have to be *horse whipped three times a day*, and live much longer than the "*long idea*" *Queen*. I have the lumber drying for 30 double story hives, and have 32 "New Idea" hives for sale, at *less than cost*. Combs cost, well say from 50 cts. to $1.00 each, and Queens 10 cts. each *or less*.

JAMES HEDDON, Dowagiac, Mich.

In answer to a query as to wherein the long hives were defective, we rec'd the following:

I have tried 22 "New Idea" hives in every way possible for the extractor, and find out that bees are bound to store the surplus ¾ of *every* comb full, when strung out horizontally, but not so with two stories; they will then store in upper set of combs almost entirely.

J. H.

We have not observed the trouble mentioned above, but our experience has been limited to one hive only. We want further reports on the matter. Friend Whitson who writes the following, seems to have succeeded with them. It was written when acknowledging the receipt of a double wall, four foot hive that we had made for him:

I have just got my bee house done, and filled the walls with dirt, but I would be glad to never put a bee in it if I knew they were as safe out-doors. Something that will wait a week while we cut hay and then stand out-doors at 20° below zero, while we sit by the fire, is what we careless ones *must* have if we ever make it pay. Yes, I must tell you that my bees were so nearly played out last spring, that I only transferred one to the Standard; that one gave me 100 lbs. honey in 20 days and 20 lbs. since, and no one of the rest did more than half as much.

J. J. WHITSON, Valley Mills, Ind.

A. A. RICE, of Seville, this Co., has used several of the 4 foot hives this season and says he gets *three times* as much honey from them as from the 10 frame hives.

Gleanings in Bee Culture,

Published Monthly,

A. I. ROOT & CO.,

EDITORS AND PROPRIETORS

MEDINA, OHIO.

Terms: 75c. Per Annum.

For Club Rates see Last Page.

MEDINA, SEPT. 1, 1874.

FRIEND NEVIN'S report of the Catnip Field is crowded out.

IT is just fun to make colonies, rear Queens or build combs even during a drouth, if you can afford the *sugar*.

BEE WORLD is to-day (Aug. 28th,) at hand. Loss of first copy was probably caused by the burning of a large amount of mail matter.

IF empty combs are worth 50c each, we really think they can be profitably made during warm weather in the fall by feeding; 'twould keep the bees in fine condition besides.

G. W. STINEBRING, Shreve, Wayne Co., O., is blackmailing the Bee-keepers of his vicinity by threatening them with suits at law, unless they pay him $5.00 for the right to use the *American Hive*. Hadn't they better take a Bee Journal?

THREE different persons it seems, have struck upon the idea of making frames of a single strip of wood, bent in shape by steaming the corners after having cut V shaped grooves, nearly through, where the bends come. We have not as yet been able, by this means, to make so firm a frame, nor one that will remain as perfectly square, but others may be more successful.

ANY one who doubts that Italians work on red clover should pass a small patch of it as we do now, half a dozen times daily. They have been busy on it about a week, and the colony belonging to the oldest daughter of our Imported, is building comb and slowly filling it with what appears to be clover honey. We removed their feeder a week ago as they seemed determined since mined to build combs under it. They have grown from 3 frames of bees and brood only, June 23d, 'tis now Aug. 28th.

A NEIGHBOR left some jars of honey at a grocery where they stood all winter side by side with our own. While the latter candied and oozed out around the top of the jars, so much so in fact that they had to be carried away finally; the former remained on the shelves clear and clean, all winter. When we applied to them for their valuable secret, the lady of the house laughingly said 'twas all because we didn't know how, and finally said theirs was put up precisely as canned fruit. The honey was heated nearly to the boiling point, by suspending it in a tin pail in a kettle of boiling water, then poured in the self-sealing jars and the lid screwed down instantly.

ALTHOUGH we shall pay all postage on GLEANINGS for 1875, the price will still remain 75c. To our friends who have so warmly aided in increasing its circulation, we tender sincere thanks. That the task of obtaining a club, for almost any periodical is no light one we are well aware, and we have many times thought 'twas easier earning our money by regular days' works, than by urging people to subscribe for something they were not sure they wanted. We are always willing and prefer to pay for such services, and where your time is limited you can aid us much by giving us the addresses of such of your friends as you think likely to engage in Bee Culture; we will send them sample copies with pleasure, and will also thank you for your aid in increasing our list.

STRAW HIVES.

A. I. ROOT & Co:—In answer to your inquiry about the straw hives described in my book, allow me to say that they are not equal to the old-fashioned, conical shaped straw hive, and for movable frames, but little superior to boards; not enough better to pay expense of making. A straw hive without frames, so that the combs are attached to the outside walls is superior for wintering in the open air, as has been proved for centuries. Straw disposes of moisture readily. When combs are in frames and there are spaces between the edges and sides of hive, the bees do not feel the influence of outside warmth readily, and suffer during protracted cold weather. The thick walls of our hive, have proved insuffient during protracted severe weather, for the same reason, when the colony was too small to generate warmth to counteract outside cold. Yet they are a great advantage in ordinary winters.

M. QUINBY, St. Johnsville, N. Y. Aug 19, '74

We intended also to inquire about straw mats for the top of hives. Will Mr. Q. please give us his experience with these?

ABOUT OUR CLOVER SEED.

A. I. ROOT & Co.—Sirs, As I have been a regular subscriber to GLEANINGS since its first start, I think it due to me to mention in your column on humbugs, that last spring a year ago I sent money to Novice for Alsike Clover to sow about one acre, I received the seed and sowed it and lo and behold! it turned out to be all the old fashioned red clover. Please explain.

SAMUEL MUMMA, Highspire, Pa.

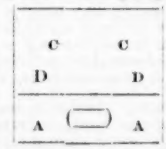
But we don't put folks in that department friend M. until we have first submitted the matter to them to determine whether the trouble was only a mistake they may regret more than any one else, or an intended fraud. The seed you mention was raised by a neighbor, and was advertised as containing a small quantity of Timothy seed, but was offered at less than the market price. One other report mentions that it was a *considerable part* red clover. Now if you, and others will send in your bills for seed, trouble, etc., we will remit at once, and thank you for reminding us to use more care in buying. We will in future test our seed by sowing a sample in-doors.

OUR UNIVERSAL FEEDER.

That a daily accession to the stores of a colony is absolutely necessary to its fullest prosperity, we are so abundantly satisfied since the experiments of this season that we take a real pleasure in recommending the following simple device:

Make as many bags of stout coarse cotton cloth (such as is required for quilts) as you have hives; these bags should be about 10 inches long and 5 deep, and the upper edges around the mouth are to be tacked to the under side of a strip of half inch board, 1¾ wide and as long as the top bar of the frames, or so long as not to allow bees to come up at the ends of the feeder.

To use it, remove one frame from the hive next the side where the lid opens, and push the edge of the quilt down to make room for the feeder as in the accompanying diagram:



The figure is supposed to represent the top

of a Simplicity hive made to contain ten Standard frames. A, A, represents the strip of wood that holds the cloth bag and the oblong hole cut through it is to allow of pouring in the syrup handily from a coffee-pot. C, C, is the quilt with the portion that usualy covers the space occupied by the feeder A, A, turned down over the frame next the feeder, along the line D, D. If we wish to stimulate brood-rearing simply, raise the cover of each hive, as you pass along, enough to allow the nose of the coffe-pot to deliver a half a tea-cupful, or more safely into the bag, and close the hive and so on with the rest. If you wish to fill up rapidly for winter, pour in larger quantities of thicker syrup, and fill again when empty until they have the desired quantity. If you wish it all taken down quietly, feed only *between sundown and dark*; at any time in the middle of the day 'twill make what we call a "row" in in the apiary. In regard to speed we will only say that two of us, with each a coffee pot, can feed 60 colonies in five minutes. You will observe that if the quilt closes every crevice as it should always do, no bees can get in the way at all. 'Tis true there is danger (if fed rapidly) of comb building in the space not filled by the bag, but this we avoid partially by moving all the brood combs to the opposite side of the hive; if they should have seven of the nine combs containing brood, you can interpose two that do not, between it and the feeder. To work rapidly you will need to have your tinsmith cut the strainer from the coffee pot that it may pour thick syrup easily. These feeders cost almost nothing, and when not in use, 100 or more can be packed away safely in a single Simplicity hive.

Now then if your bees are not fed up for winter when this reaches you, our advice would be to set about it at once, and give them enough. If you keep up brood-rearing briskly during this month, we think it can do no harm. Take the inside out of your extractor, and fill it with syrup, and you have it in a very convenient shape to replenish your coffee pot from the molasses gate. With this institution you can get beautiful combs built almost as rapidly as you can ask, if you are willing to furnish the sugar.

We can only say in regard to boiling the syrup that there is an editorial disagreement in the matter; Novice insisting that 'tis just as well to put a half barrel of sugar into the ext'r and pour on boiling water, and he backs up his position by a host of succesful experiments; P. G. on the contrary stoutly insists that good syrup cannot be made without boiling. As Novice is willing to admit that boiling "will do no hurt" those of our friends who agree with P. G. perhaps had better do so; at least if they will feel better satisfied about it. Should the bees gnaw holes in the feeder 'tis probably because your cloth is not sufficiently stout and heavy. We think nothing can induce such rapid brood rearing, aye, or comb building either, as regular, *daily* feeding; a colony may have unlimited stores sealed up in the combs, yet if no honey is coming in, either process will soon go on sluggishly. Should our bees survive the coming winter, we propose with the aid of this feeder to have some "tall" colonies next spring by the time fruit blossoms are out. Go make your feeders.

HONEY COLUMN.

Is there no way by which honey producers can get the full value of their honey or what the purchasers propose to give, without risk from irresponsible parties, and also that the purchaser incur no risk from producers sending an article less in amount and inferior to sample or description? It should be done some way by deposit of price, where conditions are agreed upon. Many more would ship, and many more buy, if they felt entirely safe from tricks.

R. WILKIN, Oscaloosa, Iowa.

An arrangement can usually be made with R. R. Co's to deliver the honey and receive the pay, but perhaps this would be only feasible with large lots.

I rec'd the extractor—have taken out 900 lbs. from 10 colonies—works well.

J. R. PRATT, Manchester, N. Y.

Have now on hand 500 lbs. comb honey, and 135 gals. extracted white clover honey from 44 stocks of hybrids and blacks. Season not good.

THEOD. M. MOLTZ, West Fairview, Pa.

We have had a fair honey season here, but nothing extra. I commenced with 42 stocks; have increased to 75, and have changed Queens in 20 hives, losing some time in each. Boxes were put on 15 hives; from 20 the honey was extracted; the remaining 7 (the weakest) were kept busy comb making. I have now Aug. 8th, perhaps 150 lbs. of box honey, and about 3800 lbs. or nearly two tons extracted, and plenty of empty boxes for sale *cheap*.

J. H. TOWNLEY, Tompkins, Mich. Aug. 8th, 1874.

P. S.—The best yield from any one hive was 60 lbs. in four days, basswood honey, carried from one, to three miles. J. H. T.

FRIEND NOVICE:—I fear you made a mistake in quoting qt. fruit jars at 75 cts. for the retail price. If we go to the trouble of putting up our honey in jars, waiting for our pay etc. we surely should have 20 cts. or more per lb. for the brightest. I find that large sales of *ext'd* honey depend upon the efforts of the retailer more than any body else, and their *efforts*, can be had at about 20 to 25 per ct. commission; 10 per ct. wont purchase any more than "Yes, well, we will: we will put it in a conspicuous place" etc., etc. Say honey 3 lbs. @ 20 cts., 60 cts.; jar, if a good one, first cost 15 cts., commission 20 per ct., and you have 95 cts. Now take the other 5 cts. for bad debts, freights, candied honey, fire, and other casualties, labels etc. Your idea of putting honey on your nearest market is just my old way of doing it. JAMES HEDDON.

A. I. ROOT & Co.:—I had 40 colonies Italian bees to begin the season with; have taken 1800 lbs. extracted honey, all Locust and White clover—a choice article—weighs 12 lbs. to the gallon. Am selling at home by the pailful at 20c. per lb., in 2 lb. jars 25c. per lb. The drouth cut short our honey harvest more than one half. I started out with the expectation of getting 4000 lbs. We have no Basswood and get nothing after 20th of July, and this year nothing after 25th of June. My neighbors who worked their bees for box honey have the pleasure of looking into empty boxes with perhaps a few pieces of comb started in one corner. I had one box hive that I intended to build box honey, but when the honey was being sealed to the bottom board, brood, comb and all, it was more than I could stand, so I "busted" the side off, took out the combs, extracted the honey and fitted them into frames. After honey failed I "hustled" all my old Queens off and now have all large healthy vigorous young Queens to "run the shebang". I never lose any bees to signify in wintering. Winter in cellar under living room—temperature 40° F.

J. A. BUCHANAN, Wintersville, O. Aug. 7th '74

A I ROOT & Co:—GLEANINGS comes to hand promptly every time, each one filled with good things, just the kind of information us beginners are in need of. Still it is not very gratifying to selfish human nature to read of your immense yield of Basswood honey during July, when our bees are not gathering enough outside of the *sugared floor* to keep them, yet we cannot complain, the yield of white clover having exceeded my expectation. The hives I extracted yielding on an average very nearly 100 lbs. I run three hives for box honey; it is not worth while to weigh as I don't care to know how small the yield is. But I do know some of the extracted ones gave me 150 lbs. each; one gave 70 in one week. I may get

more surplus yet as we generally have a good yield of fall honey, the country being yellow with golden-rod after the middle of Aug. This is only my third year at Bee-keeping, and all I know I have learned by reading and observation, and no one to go to for information, for movable comb hives are as scarce as "chicken's teeth." I have about 1100 lbs. of White clover and 450 of Fruit blossom honey, and if I can sell this readily I will go deeper still.

C. H. RUE, Manalapan, N. J. Aug. 6th '74.

No. hive	May 30	Jun 11	Jun 21	Jun 27	Jul 3	Jul 9	Jul 18	Jul 25	Aug 4	Total each. lbs.
1	7½	3¾	20½	31½	35¾	53	52½	73	27½	304
2	7½	2½	12¼	26¾	37	36½	34	60	24½	242
3	6¾	4¼	18¼	32¼	43¼	44	31	90	27	296¼
4	0	2	16	23¾	19¼	48	38	65	18	229
5	6	4	19	44¾	45¼	43½	35	60	13	270¾
Tot'l	27	17½	85¾	158¼	180	225	190½	348	110	1342
each xtng day.	Spring honey.		Clover and Raspberry.				Basswood.			

Average yield per hive 268 2-5 lbs.

EDITOR GLEANINGS: The above is what I have done this season with five, 32 (Kidder) frame, Gallup hives and Italian bees. As you perceive, bees did not gather much until the middle of June, the spring being very cold and backward here. The secret of large yields of honey is to keep strong stocks. I have just put division boards in the center of 4 hives and intend to have 9 swarms if they keep strong enough, as I gave them an entrance at each end of the hive. The division boards are perforated and covered with wire-cloth thus giving the two swarms the heat of one. I want 18c for my honey which is very thick and nice.

WM. H. S. GROUT, Poland Centre, Chaut. Co., N. Y.

Thanks for your very complete report. We fear we shall become converted to 32 frame hives, but from Quinby's report are we not at liberty to consider a two story arrangement of them, at least *equally* as good, as a horizontal? Is it not possible that the approaching hive is to be double width, and two story, whatever may be the frame? can no one furnish a report from a similar hive composed of 40 Langstroth frames? Kidder frame is 14 by 12 we think.

Be careful of wire-cloth on division boards, see page 74 July No.

FRIEND NOVICE:—I fear you will often have cause to be disappointed by my mistakes and shortcomings, since to err, you know, is human. But were you not "putting it on pretty thick" in expecting me to report 100 lbs. to the hive, which is, perhaps, nearly double the average amount reported in GLEANINGS for July?

We have less white clover this season than I have ever known, as it was nearly all killed last winter, and the same may be said of red, in this neighborhood. Two miles north or here there is considerable red clover and nearly all the clover honey we have came from there. However I will do the best I can, and if I fail to reach the standard you have set up for me, please don't, "view me with a critic's eye etc."

But is extracted honey really so much more profitable than box, in all places, and under all circumstances? With your permission I will give a little of my experience. Three years ago I had a pretty severe attack of "extractor on the brain" and determined to surprise the natives, by the amount of honey I would obtain from some of my bees. So in the spring I selected a number of my very best stocks, and as soon as they needed more room I put on the upper story, filled with empty combs, and as fast as they filled their hives with honey I extracted it.

Now for the result. The most honey I obtained from any one of them was 168 lbs. while several swarms that I let "fool away their time on box honey" yielded over 120 lbs. each; and from one stock that swarmed twice, and the swarms that came from it, I obtained 216 lbs. of box honey. I sold the extracted at 18, and the box at 25 cts. per lb. The account would stand about as follows:

216 lbs. box honey@25c	$54.00
168 " extracted " 18	30.24
Difference in favor of box honey	$23.76
or, adding value of the two swarms, $15.00 each	30.00
	$53.76

Now, in view of the above, I hope I may be pardoned if I am somewhat skeptical in regard to the advantages of extracted over box honey. Where the yield of honey comes with a rush, for instance, where it is nearly all basswood, I have no doubt the use of the extractor will prove most profitable, but where the yield is gradual, lasting a long time, as it generally does with us, I have, as yet, seen nothing to prove that the use of the extractor will yield most profit here, especially when we take in consideration the difference in the demand. Dealers come a distance of ten or twelve miles and take away the box honey, but the extracted I have to carry to them, and then find it dull sale. I believe in building up a home market, hence, try to furnish what there is a call for.

JAMES BOLIN, West Lodi, O. Aug. 12th, 1874.

There, friend B., we had suspected you of heresy before; however, we are content to let you work out your own reformation as the rest of the bee-keeping world are doing rapidly.

A I ROOT & Co:—I must say a word further in regard to what was called errors in judgement. I had said in circular that we had extracted 361 lbs in one season, from one hive, and over 200 lbs box honey; and intimated that even this amount might be exceeded. Part of such result was attributed to giving abundant room in the hive. Capt. Hetherington, Cherry Valley, N. Y., will reach this amount of box honey from a hive—I will venture to say, from 100 hives—this season. Mr. P. Elwood, Starkville, Herkimer Co., N.Y., had one stock last spring—in Quinby hive—the Queen of the family came from you. Began with eight combs. As the center ones became filled with brood, they were moved toward the outside, and the empty ones put in their place, till sixteen were full, on the bottom board; and then another course was placed directly over them, and the bees had increased to occupy the whole. No brood had been taken from them to assist others; neither did they have assistance from others. He commenced extracting before they had accumulated much, and kept the date of each time, and amount obtained—will give them at another time. I only remember the product of two days—57¼ lbs. In the aggregate, 502 lbs. I visited him Aug. 11th. Before that day he had taken 440 lbs. This was so extraordinary that I expressed a wish to see how much was accumulated since the last was taken. To accommodate me and some others present, he let us witness his taking 62 lbs. All up to that time was white honey, Buckwheat was just beginning to yield. What it will amount to is yet to be seen. The crop is promising, and usually amounts to half or two thirds as much as the white honey. It seems safe to estimate over 800 lbs. that this one hive will give in one season. The parts relating to what he already has, can be substantiated beyond dispute. When this amount can be obtained from any hive except one on this principle, I would like to know it; your readers would also.

M. QUINBY, St Johnsville, N. Y. Aug. 21st, 1874.

Lest it might appear we had a position to defend, we will submit the question to our readers whether this great result is to be attributed to the hive, locality, their owner, or the queen. We are much obliged indeed to Mr. Q. for the reports, but we *really* should have liked with them, a report also of the rest of the Apiary. Capt. Hetherington has, or had, near 1000 colonies, and Mr. Elwood, as nearly as we can determine, about 200; what the rest did, and the general average, it seems to us should be given with the above to prevent mistaken impressions. Reports have been given in GLEANINGS nearly if not quite equal to the above, and with a diversity of hives. Is it not much due to plenty of empty combs and an intelligent——but stay; if the Queen came from us 'twas certainly a "dollar Queen," and Gallup, and some others, say that "dollar Queens"——*Why* can we not rear such Queens *every time*, and get such crops of honey from every hive? Truly perfection belongs not to bee-keepers, any more than to mankind generally. We gave directions for making a mammoth hive similar to the one described by Mr. Q., on page 37, Vol. 1.

Heads of Grain,
FROM DIFFERENT FIELDS.

FRIEND NOVICE:—Mr. Martin is no doubt right in thinking I do not deserve much credit for wintering my bees without loss, as there are plenty of others that have done the same thing, and he *may* be right in thinking I may yet find my "Waterloo." Of one thing I am pretty certain, however, and that is, when it comes, if it ever does so, it will not find me with my arms folded, trusting to luck for success; but like Napoleon's old guard, in the field ready for the fight. But as I am not much inclined to cross bridges before I come to them, I will try not to borrow any trouble from that source at present.

Now to show friend Martin that it is not altogether fair sailing for bee-keepers in this section, I will mention that a neighbor living within 80 rods of me put his bees in the cellar last fall and *disturbed* them all to death before spring. Another put his three swarms in a cold out-building and only had one left the first of May, and they were not worth 25 cts. Of two other neighbors, one living one mile east and the other the same distance west, one had one swarm out of five, and the other three out of ten left. The above are the nearest neighbors I have that keep bees, and their luck is a pretty fair sample of the way bee-keepers have fared for some years past, where they were not properly cared for.

I never wintered more than one swarm on the summer stand. That was the first swarm I owned, and the amount of honey they consumed, and the number of bees that perished during the winter, determined me to try some other mode of wintering.

At the time, I was engaged in supplying the neighbors with what dry goods, notions etc. they needed, and when I talked of putting my bees in the cellar, many were the smiles exchanged at my expense. I might know how to sell goods, but bee-keeping was evidently out of my line of business. Well, the bees were put in the cellar, and in spite of all prophecies to the contrary, came out all right, and did the same each succeeding winter, until failing health compelled me to seek some employment affording more out-door exercise. A natural liking for bees, and the belief that there was money in them, indicated plainly enough what that employment should be.

On moving here, I had no cellar suitable for wintering bees in, I therefore built a house for that purpose, which has more than met my expectations so far, as my losses in wintering have amounted to almost nothing, whilst bees kept on the old hap-hazard plan are rapidly disappearing.

Now in regard to bees sometimes wintering well without any kind of care,—is it not generally owing to their being, by chance, in about the same condition, so far as bees, stores and empty combs are concerned, as a careful Apiarian would put them in, before winter? I have thought such was the case. It is seldom such chance work pays very long, for carelessness in any business is sure to bring its reward, sooner or later, and bee-keeping forms no exception to the rule. Carelessness is no safeguard against the "many varying circumstances" mentioned by Mr. Martin, and which I cannot help thinking it the duty of the bee-keeper to guard against. For instance; most of the bees that died last winter and spring were lost by the bees leaving their hives in quest of pollen or honey when the weather was too cold for them to be out, and as a consequence the old bees died before young ones were reared to take their place, thus leaving the hives bee-less, or nearly so. Now I think there is a remedy for this kind of loss. If I found the old bees were dying at a rate that threatened the safety of my bees, I should put them in the house again, feed them to set them to breeding, and keep them in the house until they could be put out with safety.

After bees have been out and had a purifying flight, they may be kept in-doors for some time with safety, and set to breeding by feeding. I have to see the first swarm yet that cannot be set to breeding, if put in a warm place, and fed.

In conclusion; Mr. Editor, just say to your farmer friends, who laugh at "scientific" bee culture, that neither the extractor, sugar-syrup, or the Italians are the cause of the loss of so many bees; as I have all the above named "varying circumstances" and they have failed to kill mine.

JAMES BOLIN, West Lodi, O. July 16th, 1874.

I have observed that bees will store surplus honey in small hives more readily on a moderate supply, than they will in large hives, but the use of the extractor greatly modifies the rule and to my mind nearly annihilates the necessity of diversity in frames and hives. I am only making a start in bee-keeping for myself, but have handled, and can handle bees for others. I did what I think most others should do, I served an apprenticeship in a large apiary, and if some of your correspondents would submit to the same kind of discipline they would not need to ask so many silly questions and let everybody know it.

In a former number of GLEANINGS a subscriber wanted to know what to do,—wanted to examine his bees when the weather was too cold—*Novice* "did not know;" why *Novice*! I carry them into a moderately warm room—do it in any kind of weather. If my bees don't sing "Never mind the weather," I do.

Geo. W. Horner, Dubuque, Ia.

Now friend H. if we all followed your advice there wouldn't be any more novices. A letter is now before us from a lady, who has just been through her hives with the extractor for the first time, asking how soon she can extract them again; of course we replied pleasantly, "as soon as they are full again," and we hope our readers will not hesitate to ask anything they may feel disposed. We have tried taking the bees in doors to examine, but they had a way of getting around loose on the floor, and after somebody had stepped on them they were "all spiled" or as Blue Eyes would express it, "broke, broke, broke, real hard!"

FRIEND NOVICE:—I see a good deal said about "Quinby's new Smoker" as though he were the inventor of it. I have never seen it, but from description should think it the same as one Mr. Davis of Clear Water, Wright Co., Minn., tried to sell me seven years ago. It was made of tin, perhaps 2 inches in diameter and 8 inches (more or less) in length, with a folded seam like those in tin pans (as the heat melted those fastened only with solder) one end terminated in a small tube, to the other end was attached a small bellows, which could be readily removed when wishing to fill it. Who was the inventor I know not, he made them originally to kill lice on calves or ticks on sheep, with tobacco smoke, but when he went to keeping bees he used one of them to smoke his bees.

Have taken 56 lbs. of honey from 4 of my 5 swarms, all of which were weak in spring; will not extract from brood chamber this year and see if they will not winter better on early gathered honey. Wintered bees successfully when I ext'd only from top story.

S. ROWELL, Faribault, Minn. Aug. 2nd, 1874.

Thanks for the item. We see *B. K. M.* also mentions that combining the smoker with the bellows is not new. However, the most ingenious part of Quinby's is perhaps the arrangement of valves that open when it is stood upright, but close when laid down; so far at least, we believe Mr. Q. is entitled to credit.

We really hope leaving the honey near the brood may prove an advantage, but if this is all the trouble why have box hives fared so badly? We certainly should be sure that the bees have an abundance of well sealed ripened honey for winter, and where fall stores abound your plan will probably be best, say, after the 1st of August at least. We never extract after that time here.

Should not a *fertile* Queen begin to lay eggs immediately, on being placed with and received by a swarm of bees, after being caged with about a dozen workers 4 or 5 days? N. E. PRENTICE, Castalia, O.

She should lay within 24 hours at least, but before deciding, we would give them a good feed; *then* if she would not lay we would say "off goes her head."

You should have said in starting a colony with so few bees to do the work, "try to do as much of it as you can yourself." Keep them warm, fight their enemies, give them plenty of both honey and pollen. I built up a colony so last year, and two this summer. They consume an enormous quantity of pollen and should be allowed to fly *every evening*. One of these I found had a great many dead; I noticed too that the

pollen had disappeared and gave more, and the mortality ceased immediately. These last I kept closed several days dreading robbers, but opened them all in the evening and swept off the bottom-board. The Sago tree commenced blooming about the 5th of June and bloomed freely about three weeks and still has some straggling blossoms left. Did your seed germinate? Have you any plants living now? I have never heard whether any one has succeeded in making them grow. ANNA SAUNDERS, Woodville, Miss.

Our seed, we are very sorry to say, did not germinate—not a seed. Perhaps we did not put it in a good place; in fact it is—*done up in the original paper, in a drawer at our elbow.*

We beg your pardon sincerely Miss Anna, and will plant some within the next hour. Can't say for the other folks.

In regard to the small colonies; we really doubt if they pay as a general thing. If possible we prefer to give them bees, and brood enough, that they may keep away robbers and gather pollen, almost immediately.

DEAR NOVICE:—Those Queens arrived so safely, and were so smart and lively that I must have another right away. I exchanged Queens with Mr. McMurdo, as mine was delayed. He said he would let me have his and take mine when it came; I felt almost sorry after I saw the one sent me, as it was the largest and lighter colored, those sent McMurdo being pretty dark. Hurrah for sending Queens by mail, and for those tin Queen cages.

ILA MICHENER, Low Banks, Ontario, Canada.

We have perhaps omitted to state that our imported daughters are dark; indeed, some of them just before fertilization can hardly be distinguished from common Queens, but after they are laying, they become much lighter unless it be the extremity of the body which remains dark, or as Dadant expresses it, of a dark leather color. The dark Queen mentioned above was daughter of an Imported Queen.

1. Is the statement true that Italians work on the red clover? We have no Buck-wheat for a fall crop, but the Astor is abundant, and I suppose as good.
2. Do you prefer hives one, or two stories?
3. Is it not better to give the same room laterally, than perpendicularly? That is, widen the hive till it will hold twenty frames in one story, and contract by close fitting boards in winter, to ten.
4. How many frames (Langstroth) are best for a full colony of Italian bees?
5. Is it best to keep the honey well extracted during the entire season? I have done that in some of my stocks, and they have reared *much* more brood than those where the combs have not been kept empty. Some advise me to keep the combs empty all through the season, even if I have to put the honey back in the fall.

I see by the copy of GLEANINGS you were kind enough to send me, that you make it your business to answer all the questions your correspondents ask you. That is the only excuse I have to offer for this long list of questions—which I hope neither offend or weary you. I am going to take your GLEANINGS, and I hope that will keep me posted in future. I am a "Country Doctor," and have just time enough from my professional cares, to write an occasional impertinent letter, and attend to a few stands of bees. I made *myself* a honey extractor with a 12 gal. lard stand, tin, and the castings of a patent churn.

J. E. FRY, Lynnville, Tenn.

1. Most certainly they do, but not at all seasons. While we invariably find them on it working briskly in June, we seldom see them take any notice of it in the fall. Whenever the common bees are busy on white clover we rarely fail to find the Italians busy on the red.

2, and 3. We really cannot give a full, decided preference for either form, and opinions differ widely as you may see by reports. Each form has its advantages and disadvantages.

4. About twenty during the honey season, and ten during the winter.

5. By all means, we should say, whenever it is coming in briskly.

We should be ill natured indeed, were we to refuse to answer any question coming from a "country doctor" or minister either for that matter. If they make it their business to serve mankind all their lives uncomplainingly, we certainly should be willing to help them whenever we can.

Both of my Queens—one from Blakeslee and one from Dean, arrived safely and in fine order. I notified both senders instanter, and send a card to thank you and to say that I have been quite successful in introducing them, particulars bye and bye. J. MCMURDO.

The "dollar Queen" business seems now to have a firm basis, but since our note last month, saying we were nearly caught up with orders, so many have come in that we fear some may have to lay over until next season. In such cases please state explicitly whether you wish the money returned, or to have them placed first on the list next season.

G. Brigs, of New Sharon, this Co., had considerable basswood honey collected this season, although living three miles from any basswood timber.

R. WILKIN, Oscaloosa, Iowa.

After our main crop is over, our bees go to the low lands near the river, where it blossoms later, about a mile and a half perhaps; they still store considerable, but their wings soon get very ragged, and many doubtless perish from flying so great a distance. Enough may be brought three miles perhaps to give the honey a plain basswood flavor but we should hardly think it carried profitably so far.

The quilts stick rather tightly to the frames, so as to raise some when it is taken off. Is there any remedy? Have been thinking that if something could be used not touching the frames at all, it would be better. Would it not be a good plan to have the covers on hives so fixed that the sun could shine on the quilts or straw mats; that is, in spring and fall, or in the summer time when not too hot.

PETER MOYER, Sharpsville, Pa.

We find little trouble if the quilt be taken by one edge near the end of the frames, and "peeled" off. This will not disturb the frames, nor the bees seriously. If the quilt is kept up, we do not get the advantage of closed top frames, that we do when it comes down close to them. We think, (see Problem 8, Vol. 1) letting the sun shine on the quilt in spring would certainly be an advantage if it did not induce flying in unseasonable weather; nothing but careful experiment can tell how it will do.

FRIEND NOVICE:—Would it interest you, or your readers, to know how the bee business is prospering "away down East," among the "Blue noses." Well, almost universally, it is the old style—box hives—plenty of swarms—no honey. Thanks to GLEANINGS, there is at least one exception. Convinced by your writings that there was money in the business of bee-keeping, I adopted "Novice" as my model, and went ahead. Though our acquaintance extends but little over a year, yet the wind-mill, Novice's extractor, 46 Simplicity hives, the hexagonal apiary etc., all are here.

Last spring I began with 43 stocks—16, in old movable comb hives, 27 in boxes which I purchased for about $2.50 each. All were safely wintered, and by judicious feeding were in good condition when the honey harvest began. The spring, and first part of summer were very cold and wet. No honey was obtained from fruit blossoms, and I was obliged to feed my bees on the 4th of July to prevent starvation. My 27 box hives were transferred, but I could only get enough good comb out of them on an average to fill four of my Quinby frames. This left a vacancy of six frames. The honey harvest began the 6th of July.

To date, I have 2500 lbs. of superior clover honey, my hives are all filled with nice worker comb and 8 are double hives. I have only increased my stocks to 46, but with the increase of comb, and condition of bees, I consider my stocks at least worth $100.00 more than in the spring. My honey, bottled and labeled, is selling rapidly at the rate of 28 cts. per lb. clear of bottles; at this rate my honey will turn me $700.00 which with the $100.00 above makes me $800.00 clear profit from 43 stands.

My bees are rapidly filling up for winter on Buckwheat honey. The old fogy bee-keepers pronounce this the worst season they have ever known, they have little or no honey. I think myself that we seldom have poorer. The result of my summer's experiment has astonished every one, myself included.

That Novice may abundantly share the prosperity and happiness he is causing hundreds to enjoy, is the sincere wish of his British cousin. G. C. MILLER.

Mt. Hanley, N. S., Aug. 12th, 1874.

More than once have we been tempted to feel that our pay was but meager for the number of hours we labor daily for the good of Bee Culture, but friend M., you and others remind us that our recompense is ample; perhaps far greater than we deserve. If it is not all in dollars and cents 'tis in something far better, the consciousness of having earned the good will of our fellow laborers. Will our bee-keeping British cousins bear in mind that although we may never have the pleasure of giving them such a grasp of the hand as we might wish, yet a warm place in our heart will always be reserved for them.

Supposing I succeed in getting Queens from those eggs you are going to send me, how many bands will they have? or at least their progeny? My drones are all black of course. How many times will they have to be crossed till there is no trace of the Italian left. Novice why don't you tell us something about Egyptian bees sometime in GLEANINGS?

ILA MICHENER, Low Banks, Ontario, Can.

P. S.—There is something I wanted to tell you and nearly forgot. I have ten Queen cells nearly ready to cap from eggs from one of Mr. McMurdo's Queens.

If the dollar Queens are reared from imported mothers, we think none of the bees will ever show less than two yellow bands; and these two banded bees are very industrious and quite pleasant to handle. However, if Queens are reared from this brood that produces the two banded bees, they are very nearly black, and when mated with common drones, their progeny is about as disagreeable as bees can well be, and we can blame no one for vehemently denouncing such hybrids. Friend Muth of Cincinnati, has Egyptian bees. Will he please tell us more about them.

As our honey sells well at good prices, we have determined to feed sugar to our bees this fall. How many barrels should you get to feed say 70 colonies?

JAMES HEDDON, Dowagiac, Mich.

Much depends on the strength of your colonies. We have never found any ground at all for the assertion that two weak colonies would consume less when united than either of them separately, but on the contrary find the amount of food consumed as with all other stock, depends upon the number to be fed. We should estimate 25 lbs. of sugar, enough for the strongest colony from Sept. until May; 20 lbs., enough for all ordinary stocks, and where the bees only cover three or four combs on a frosty morning, perhaps 10 lbs. would suffice. Never err by giving too little, unless you expect to feed early in the spring, and on the other hand we should wish to give only about enough on the average to last until honey comes in next season, that it may not be in the way in the combs. Without seeing your 70 stocks we might guess that you would need six or seven barrels of sugar, if all their stores were removed in Sept.

These remarks refer to in-door wintering; we have had too little experience of late years to decide how much more will be required for out-door wintering, but perhaps a half more would not be far out of the way.

It is strange but I never can get a Queen that will occupy more than 5 or 6 frames with brood, and not nearly all the comb in frames at that, some at top and sides being filled with honey and pollen. Am inclined to disbelieve reports of Queens filling so many frames as some say they do. I have Queens from many breeders. J. A. BUCHANAN, Wintersville, O.

We partially agree with you friend B. A Queen that occupies 7 L. frames we think very fair; 'tis true that by mixing the combs up frequently, we may get *some brood* in 20 combs, or even more. Is this good economy? Those who are in doubt should make the experiment, but please try it on a *few* hives first.

MR. ROOT:—I have thickened my syrup with starch for more than 12 years to feed bees, I have not perceived any bad effect from it, if some one would feed a hive that way this fall and notice how it wintered, I would like to hear the result. I could not well feed with and without, myself. J. WINFIELD, Hubbard, O.

Starch and sugar are regarded in Chemistry as nearly identical, in fact starch is converted into sugar by a chemical process with such facility that the price of the two always remains about the same, and as the starch in our food is quickly changed to sugar in the process of digestion, may it not be the same with the bees? Still further is it not a fact that when you feed starch with the sugar, in form of a syrup, you find only the latter deposited in the cells. We are inclined to think that even if starch were taken with avidity, it would not prove a substitute for pollen nor even for Rye and Oat meal.

I send for some fresh eggs laid during the night, or within 24 hours before sending. These eggs will count with me. After they are grubs or larvæ one or two days old, I transfer them to Queen cells already built in Queenless Nuclei, where they are brought up Queens, and they will be beauties. I have two such now on hand, one laying, the other younger, besides one in the larvæ state. I wish these eggs to be from your imported Queen.

JOHN L. DAVIS, Delhi, Mich. Aug. 7th, 1874.

'Tis our opinion friend D. has hit on something really valuable. We at once removed the larvæ from three queen cells in our own Apiary, and introduced others much younger from the imported stock. They were all fed and taken care of; we use a quill toothpick for the operation; push it under the just hatched worker larvæ and remove it food and all from the worker cell, and carefully put it in the Queen cell, having previously "poked" out the original occupant. If done carefully we have no doubt of complete success, and a stubborn colony can be allowed to go on with as many of their own Queen cells as they choose to build. We sent two pieces to friend D., one containing eggs as he requested and the other larvæ so small as to be just visible. He writes:

The boxes were on hand last night the 13th inst, and this 14th, 4 P. M. there are 15 Queens started from the comb with larvæ; it came all right, the other came with the same mail but ⅔ of the eggs were jarred out of the cells. Among the Queen cells spoken of above, 4 are in incipient natural Queen cells into which I transferred the larvæ this morning, the bees seemed pleased and are already feeding them jelly. I cut the piece containing larvæ into three pieces and put into three hives and they have started 4, 5, and 6 cells respectively already. Thanks for promptness.

Please inform me, 1st: Are Queens reared in a two frame nucleus as good as those reared in an eight frame colony? My bees in nucleus tore down the cell I gave them an I are building one for themselves, shall I allow them to proceed?

2nd. In making a nucleus, I by mistake, got the old Queen on one of the frames, which error was not discovered till two days after. In that case could I put her back in her own hive without endangering her life? or would you advise changing places of the nucleus and the old hive?

GEO. G. SCOTT, Dubuque, Iowa, July 15th, 1874.

1st. So far as vigor is concerned, we would let them use the cell if we were sure it contained an abundance of royal jelly, which seldom is the case unless the young colony have become fully organized and are bringing both honey and pollen industriously. 'Tis our opinion a pint of bees, in very warm weather, may do this as well as a larger number, but they would probably be unable to supply more than one or two cells, and a larger number of bees would generally be preferable.

2nd. Try and see if they will receive their old Queen of course, before running any risk. If they are gathering honey there will seldom be any trouble, but you can easily remove a frame and place her on it in the midst of the bees, having some smoke handy, in case she should be in danger. We introduce Queens newly hatched in this way, with scarcely ever a failure. If the honey yield has stopped it may be necessary to cage your old Queen before releasing her, after two days or more absence, but we should try her first on the plan given. Queens not valued highly we often introduce in the manner given without caging, and even let them run in at the entrance without opening the hive; at certain seasons all will go well every time, but at others every Queen, seemingly, will be destroyed. They can be released on a single comb without danger if you are prompt and fearless in rescuing them when attacked.

FRIEND NOVICE:—I had an extractor made on your plan, and it works like a charm. I am a sort of a genius but I have been trying to study out the principle of an extractor the last year or so and could get no idea of how to get it to work till I got first volume of GLEANINGS. I then went to my tin-smith but had much trouble to get him to understand it. However we made it work. I think I can beat you on prices; I had it made for frames 14x14½ inch, with sloping bottom, molasses gate excepted, for $4.15.

Bees are not doing very much here this summer, especially blacks. The Italians are still doing something. I have two that swarmed and have extracted 21 lbs. of honey from them, the blacks beside them have neither swarmed nor made any honey more than they consumed.

I am rearing a few dollar Queens this summer. I can't raise them fast enough, but if my life is spared till next spring I will breed on a larger scale. I should like to have your advice as to how to proceed. Would it be best to have my nuclei formed of say 2 or 3 standard frames, or have little boxes with four frames, 6 inches square? I am using the latter now.

I intend to buy bees to rear Queens with. I can buy them in box hives with drawers of from 12 to 15 lbs. of box honey for $5.00. Now, if I use the standard frame, would it be advisable to transfer them in September, extract the honey all from the body of the hive and give them all the comb, then feed sugar-syrup for winter? Comb honey sells here for 25 cts. per lb., and extracted for 18 cts., so they would not cost more than $2.00 per hive or hardly that. Or would it be a better plan to let them remain until spring and pay $5.00 for them without the box honey, and be sure of not losing them this winter? though there has not been much trouble in wintering in this section of the country.

AARON T. WEIDNER, Bigler, Pa.

Small hives, and small frames have been almost universally abandoned. You will find, we think that using the same frames used in your hives is much safest in the long run, and if not less than three combs of brood be used to start a nucleus, they will protect themselves from robbers without shutting them in at all. We think we would use nothing smaller than a hive capable of containing ten combs; these can then be built up to a good colony with little trouble after they get a laying Queen.

If the honey can all be extracted in August, or early in Sept., so as to feed the syrup and get everything in good shape during warm weather, it might do; but transferring in the fall, where the combs are filled with honey, is risky business even for an expert. The safer way would be to wait until spring we think, especially if bees winter well in your locality on natural stores.

Well, Mr. GLEANINGS, will you please tell us next month through the "wind-mill print" how Novice manages to separate his honey from the sugar-syrup that gets into his hives in various ways. We would like some times to feed a little syrup but don't want it with our honey. Some say to us when we offer extracted honey, that it is syrup. We tell them no, it is the pure honey and tell the truth too.

A. J. HOOVER, Plymouth, Pa.

Just exactly. In the spring we contrive to have all the sugar-syrup used up in rearing brood, before honey comes in, and if some heavy combs still remain we put them into nucleus hives to be used by bees not old enough to gather honey. If placed next to a brood comb it will be used up very fast.

The present season we found it impossible to use it where the bees had died, without reserving it until the honey yield had passed, and it is now being worked up to excellent advantage by upwards of 40 young colonies containing Queens just commencing to lay. Such combs filled heavy with sealed syrup, work in beautifully in this way. When we were extracting if by chance any comb was brought in containing sealed honey looking other than as if it had been freshly sealed, it was tested by tasting and if any trace of sugar was perceptible, 'twas condemned and reserved for brood-rearing. Should fall honey come in while feeding, we really don't know what is to be done unless empty combs be inserted temporarily to receive the new stores, extracting from them only, and leaving the brood combs untouched at this season.

My bees have not nor can I make them do much, there seems to be no honey in the clover, and we have no linn; buck-wheat is just commencing to bloom. Have only taken out with extractor from over 50 colonies 260 lbs., and think I had better have left that in as they don't increase much. Very cool, no comb honey at all. A. J. HOOVER, Aug. 8th, 1874.

Really friend H., such a report is almost as disheartening as to hear ones colonies are almost all dead. Did we not know that you really *know how* to take care of bees, we might think some of the fau t yours.

What are the advantages of Alsike clover over White clover as a honey plant?

CHAS. H. RUE, Manalapan, N. J.

That it is a larger plant, bears more and larger blossoms, and consequently gives more honey. On the other hand we really fear it is not going to "hold" in the ground like the common white, or even the red clover. Something has been said of seeding with what is called Dutch White clover. Can any one tell us more about it? Seedsmen advertise it we think.

The cider from 700 trees I distill into "hog fat" with out paying the U. S. any tax or demoralizing my bees. If your cider neighbors have as much trouble & expense—getting cheated to boot—as I have had in converting cider into brandy, they may find that hogs will utilize waste apples to a much greater profit.

J. B. TOWNLEY, Red Hill, Va.

We have a fine crop of apples here that we pray may never be used for brandy.

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Those whose names appear below, agree to furnish Italian Queens the coming season for $1.00 each, under the following conditions; No guarantee is to be assumed of purity, safe delivery or any thing of the kind, only that the Queen be reared from a choice, pure mother. They also agree to return the money at any time when customers become impatient of such delay as may be unavoidable.

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